8B--Sparta Loamy Sand, 1 To 6 Percent Slopes

Component Description

Sparta and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 6 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.5 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
H1--0 to 38 inches; loamy sand
H2--38 to 60 inches; sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

Hanska
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

27A--Dickinson Fine Sandy Loam, 0 To 2 Percent Slopes

Component Description

Dickinson and similar soils
Extent: 90 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
H1--0 to 14 inches; fine sandy loam
H2--14 to 40 inches; fine sandy loam
H3--40 to 60 inches; fine sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

Hanska
Extent: 5 percent of the unit
Geomorphic description:
Flat

27B--Dickinson Fine Sandy Loam, 2 To 6 Percent Slopes

Component Description

Dickinson and similar soils
Extent: 90 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.4 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
H1--0 to 14 inches; fine sandy loam
H2--14 to 40 inches; fine sandy loam
H3--40 to 60 inches; fine sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

Hanska
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

31F--Storden Loam, 20 To 35 Percent Slopes

Component Description

Storden and similar soils
Extent: 90 percent of the unit
Slope range: 20 to 35 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 60 inches; loam

Delft
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

35--Blue Earth Mucky Silt Loam

Component Description

Blue earth and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Relict lakebed
Slope range: 0 to 1 percent
Surface layer texture: Mucky silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October

November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 12.6 inches
Content of organic matter in the upper 10 inches: 17.5 percent
Typical profile:
H1--0 to 10 inches; mucky silt loam
H2--10 to 60 inches; mucky silt loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Rim

41B--Estherville Sandy Loam, 1 To 6 Percent Slopes

Component Description

Estherville and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 13 inches; sandy loam
H2--13 to 18 inches; sandy loam
H3--18 to 60 inches; gravelly coarse sand

Biscay
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

69B--Fedji Loamy Fine Sand, 1 To 6 Percent Slopes

Component Description

Fedji and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 6 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 8.2 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
H1--0 to 12 inches; loamy fine sand
H2--12 to 35 inches; loamy fine sand
H3--35 to 42 inches; clay loam
H4--42 to 60 inches; clay loam

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Dassel

Extent: 5 percent of the unit
Geomorphic description:
Depression

84--Brownton Silty Clay Loam

Component Description

Brownton and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 1 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.1 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 22 inches; silty clay loam
H2--22 to 38 inches; silty clay
H3--38 to 60 inches; silty clay loam

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

86--Canisteo Clay Loam

Component Description

Canisteo and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 22 inches; clay loam
H2--22 to 36 inches; clay loam
H3--36 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

101B--Truman Silt Loam, 1 To 4 Percent Slopes

Component Description

Truman and similar soils

Extent: 90 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 12.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 14 inches; silt loam
H2--14 to 34 inches; silt loam
H3--34 to 60 inches; silt loam

Madelia
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

102B--Clarion Loam, 1 To 4 Percent Slopes

Component Description

Clarion and similar soils
Extent: 90 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 32 inches; loam
H3--32 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

112--Harps Clay Loam

Component Description

Harps and similar soils
Extent: 90 percent of the unit
Geomorphic description:

Rim
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.9 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 18 inches; clay loam
H2--18 to 36 inches; clay loam
H3--36 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

113--Webster Clay Loam

Component Description

Webster and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.9 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
H1--0 to 23 inches; clay loam
H2--23 to 33 inches; clay loam
H3--33 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

114--Glencoe Clay Loam

Component Description

Glencoe and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
H1--0 to 28 inches; clay loam
H2--28 to 46 inches; clay loam
H3--46 to 60 inches; clay loam

Canisteo
Extent: 5 percent of the unit

118--Crippin Loam

Component Description

Crippin and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
H1--0 to 17 inches; loam
H2--17 to 33 inches; loam
H3--33 to 60 inches; loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Flat

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

128A--Grogan Silt Loam, 0 To 2 Percent Slopes

Component Description

Grogan and similar soils
Extent: 90 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 15 inches; silt loam
H2--15 to 36 inches; silt loam
H3--36 to 60 inches; stratified very fine sandy loam to silt loam

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Flat

Madelia
Extent: 5 percent of the unit
Geomorphic description:
Flat

128B--Grogan Silt Loam, 2 To 6 Percent Slopes

Component Description

Grogan and similar soils
Extent: 90 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 15 inches; silt loam
H2--15 to 36 inches; silt loam
H3--36 to 60 inches; stratified very fine sandy loam to silt loam

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Flat

Madelia
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

130--Nicollet Loam

Component Description

Nicollet and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:

H1--0 to 19 inches; loam
H2--19 to 34 inches; clay loam
H3--34 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Flat

134--Okoboji Silty Clay Loam

Component Description

Okoboji and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 12.4 inches
Content of organic matter in the upper 10 inches: 8.5 percent
Typical profile:
H1--0 to 34 inches; silty clay loam
H2--34 to 48 inches; silty clay loam
H3--48 to 60 inches; silty clay loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Flat

Harps
Extent: 5 percent of the unit
Geomorphic description:
Rim

136--Madelia Silty Clay Loam

Component Description

Madelia and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August

Ponding: None
Available water capacity to a depth of 60 inches: 11.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 18 inches; silty clay loam
H2--18 to 25 inches; silty clay loam
H3--25 to 60 inches; silt loam

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

140--Spicer Silty Clay Loam

Component Description

Spicer and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 18 inches; silty clay loam
H2--18 to 30 inches; silty clay loam
H3--30 to 60 inches; silt loam

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

160--Fieldon Loam

Component Description

Fieldon and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 1 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 32 inches; fine sandy loam
H3--32 to 60 inches; loamy fine sand

Dassel
Extent: 5 percent of the unit

Geomorphic description:
Depression

178--Granby Loamy Sand

Component Description

Granby and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 2 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April May June
Wet soil moisture status is lowest (depth, months):
1.8 feet August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 7.0 percent
Typical profile:
H1--0 to 26 inches; loamy sand
H2--26 to 32 inches; loamy sand
H3--32 to 60 inches; loamy sand

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Flat

181--Litchfield Loamy Fine Sand

Component Description

Litchfield and similar soils
Extent: 90 percent of the unit
Slope range: 0 to 3 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 6.4 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 21 inches; loamy fine sand
H2--21 to 40 inches; stratified fine sand to loamy fine sand
H3--40 to 60 inches; fine sand

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Flat

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

183--Dassel Fine Sandy Loam

Component Description

Dassel and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
1.8 feet August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 9.0 percent
Typical profile:
H1--0 to 27 inches; fine sandy loam
H2--27 to 37 inches; sandy loam
H3--37 to 60 inches; loamy sand

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Flat

Hanska
Extent: 5 percent of the unit
Geomorphic description:
Flat

197--Kingston Silty Clay Loam

Component Description

Kingston and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 16 inches; silty clay loam
H2--16 to 22 inches; silty clay loam
H3--22 to 60 inches; silt loam

Madelia
Extent: 5 percent of the unit
Geomorphic description:
Flat

Okoboji
Extent: 5 percent of the unit
Geomorphic description:

Depression

222B--Lasa Loamy Fine Sand, 1 To 6 Percent Slopes

Component Description

Lasa and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 6 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.3 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 18 inches; loamy fine sand
H2--18 to 60 inches; fine sand

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

227--Lemond Loam

Component Description

Lemond and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 6.9 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 18 inches; loam
H2--18 to 28 inches; sandy loam
H3--28 to 60 inches; sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

229--Waldorf Silty Clay Loam

Component Description

Waldorf and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat

Slope range: 0 to 1 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.9 inches
Content of organic matter in the upper 10 inches: 7.0 percent
Typical profile:
H1--0 to 23 inches; silty clay loam
H2--23 to 38 inches; silty clay
H3--38 to 60 inches; silty clay loam

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

247--Linder Sandy Loam

Component Description

Linder and similar soils
Extent: 90 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.3 feet April
Wet soil moisture status is lowest (depth, months):
3.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 6.5 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
H1--0 to 18 inches; sandy loam
H2--18 to 33 inches; sandy loam
H3--33 to 60 inches; coarse sand

Biscay
Extent: 5 percent of the unit
Geomorphic description:
Flat

Mayer
Extent: 5 percent of the unit
Geomorphic description:
Flat

255--Mayer Loam

Component Description

Mayer and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):

0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 8.0 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 19 inches; loam
H2--19 to 38 inches; loam
H3--38 to 60 inches; gravelly coarse sand

Biscay
Extent: 5 percent of the unit
Geomorphic description:
Flat

269--Millington Clay Loam, Occasionally Flooded

Component Description

Millington and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
H1--0 to 16 inches; clay loam
H2--16 to 38 inches; clay loam
H3--38 to 60 inches; stratified loam to clay loam

Coland
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

281--Darfur Fine Sandy Loam

Component Description

Darfur and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 1 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 8.1 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:

H1--0 to 23 inches; fine sandy loam
H2--23 to 36 inches; fine sandy loam
H3--36 to 60 inches; loamy fine sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

Fieldon
Extent: 5 percent of the unit
Geomorphic description:
Flat

282--Hanska Loam

Component Description

Hanska and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 1 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 6.4 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 18 inches; loam
H2--18 to 30 inches; sandy loam
H3--30 to 60 inches; sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

327A--Dickman Sandy Loam, 0 To 2 Percent Slopes

Component Description

Dickman and similar soils
Extent: 90 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 15 inches; sandy loam
H2--15 to 20 inches; loamy sand
H3--20 to 60 inches; sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

Hanska

Extent: 5 percent of the unit
Geomorphic description:
Flat

327B--Dickman Sandy Loam, 2 To 6 Percent Slopes

Component Description

Dickman and similar soils
Extent: 90 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 15 inches; sandy loam
H2--15 to 20 inches; loamy sand
H3--20 to 60 inches; sand

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

Hanska
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

336--Delft Loam

Component Description

Delft and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Drainageway
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 29 inches; loam
H2--29 to 47 inches; clay loam
H3--47 to 60 inches; clay loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

362--Millington Clay Loam, Frequently Flooded

Component Description

Millington and similar soils

Extent: 90 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
H1--0 to 36 inches; clay loam
H2--36 to 60 inches; stratified sandy loam to silty clay loam

Coland
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

392--Biscay Loam

Component Description

Biscay and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 22 inches; loam
H2--22 to 32 inches; loam
H3--32 to 36 inches; sandy loam
H4--36 to 60 inches; stratified gravelly coarse sand to gravelly loamy sand

Mayer
Extent: 5 percent of the unit
Geomorphic description:
Flat

421B--Ves Loam, 1 To 4 Percent Slopes

Component Description

Ves and similar soils
Extent: 90 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained

Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 14 inches; loam
H2--14 to 18 inches; loam
H3--18 to 25 inches; loam
H4--25 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

423--Seaforth Loam

Component Description

Seaforth and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 12 inches; loam
H2--12 to 24 inches; loam
H3--24 to 60 inches; loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Flat

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

446--Normania Loam

Component Description

Normania and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):

2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 24 inches; clay loam
H3--24 to 32 inches; clay loam
H4--32 to 60 inches; loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Flat

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

487--Hoopeston Fine Sandy Loam

Component Description

Hoopeston and similar soils
Extent: 90 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.3 feet April
Wet soil moisture status is lowest (depth, months):
3.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 6.8 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
H1--0 to 18 inches; fine sandy loam
H2--18 to 32 inches; fine sandy loam
H3--32 to 60 inches; fine sand

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Flat

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

517--Shandep Clay Loam

Component Description

Shandep and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April

Wet soil moisture status is lowest (depth, months):
1.8 feet August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 8.9 inches
Content of organic matter in the upper 10 inches: 8.0 percent
Typical profile:
H1--0 to 22 inches; clay loam
H2--22 to 40 inches; clay loam
H3--40 to 60 inches; loamy sand

Fieldon
Extent: 5 percent of the unit
Geomorphic description:
Flat

539--Palms Muck

Component Description

Palms and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 18.5 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
H1--0 to 31 inches;
H2--31 to 49 inches; silty clay loam
H3--49 to 60 inches; silty clay loam

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

562--Knoke Silty Clay Loam

Component Description

Knoke and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August

Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 12.9 inches
Content of organic matter in the upper 10 inches: 8.5 percent
Typical profile:
H1--0 to 10 inches; silty clay loam
H2--10 to 50 inches; silty clay loam
H3--50 to 60 inches; silty clay loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Rim

575--Nishna Silty Clay Loam

Component Description

Nishna and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April May
Wet soil moisture status is lowest (depth, months):
2.6 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 7.3 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
H1--0 to 10 inches; silty clay loam
H2--10 to 60 inches; silty clay loam

Millington
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

639B--Ridgeport Sandy Loam, 1 To 6 Percent Slopes

Component Description

Ridgeport and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.7 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
H1--0 to 16 inches; sandy loam
H2--16 to 33 inches; sandy loam
H3--33 to 60 inches; gravelly coarse sand

Biscay
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

654--Revere Clay Loam

Component Description

Revere and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 22 inches; clay loam
H2--22 to 36 inches; clay loam
H3--36 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

668--Corwith Silt Loam

Component Description

Corwith and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.6 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
H1--0 to 17 inches; silt loam
H2--17 to 27 inches; silt loam
H3--27 to 60 inches; loamy very fine sand

Madelia
Extent: 5 percent of the unit
Geomorphic description:
Flat

Spicer
Extent: 5 percent of the unit
Geomorphic description:
Flat

789B2--Grogan-Lasa Variant Complex, 2 To 6 Percent Slopes, Eroded

Component Description

Grogan and similar soils

Extent: 50 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 36 inches; silt loam
H3--36 to 60 inches; stratified fine sand to loamy fine sand

Lasa variant and similar soils
Extent: 40 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 5.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 10 inches; loamy fine sand
H2--10 to 60 inches; stratified fine sand to loamy fine sand

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

789C2--Lasa Variant-Grogan Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Lasa variant and similar soils
Extent: 50 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loamy fine sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.8 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 10 inches; loamy fine sand
H2--10 to 34 inches; loamy fine sand
H3--34 to 60 inches; stratified fine sand to loamy fine sand

Grogan and similar soils
Extent: 35 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 32 inches; fine sandy loam
H3--32 to 60 inches; very fine sandy loam

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Dassel
Extent: 5 percent of the unit
Geomorphic description:
Depression

790B--Grogan-Dickinson Complex, 1 To 4 Percent Slopes

Component Description

Grogan and similar soils
Extent: 50 percent of the unit
Slope range: 1 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.7 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 18 inches; loam
H2--18 to 35 inches; silt loam
H3--35 to 60 inches; very fine sandy loam

Dickinson and similar soils
Extent: 40 percent of the unit
Slope range: 1 to 4 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 7.2 inches
Content of organic matter in the upper 10 inches: 1.5 percent
Typical profile:
H1--0 to 14 inches; fine sandy loam
H2--14 to 36 inches; fine sandy loam
H3--36 to 60 inches; fine sand

Darfur
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Dassel

Extent: 5 percent of the unit
Geomorphic description:
Depression

887B--Clarion-Swanlake Loams, 1 To 4 Percent Slopes

Component Description

Clarion and similar soils
Extent: 50 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 15 inches; loam
H2--15 to 30 inches; loam
H3--30 to 60 inches; loam

Swanlake and similar soils
Extent: 35 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

909C2--Bold-Truman Silt Loams, 5 To 12 Percent Slopes, Eroded

Component Description

Bold and similar soils
Extent: 50 percent of the unit
Slope range: 5 to 12 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None
Available water capacity to a depth of 60 inches: 13.2 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
H1--0 to 6 inches; silt loam
H2--6 to 60 inches; silt loam

Truman and similar soils
Extent: 40 percent of the unit
Slope range: 5 to 12 percent
Surface layer texture: Silt loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.8 inches
Content of organic matter in the upper 10 inches: 5.6 percent
Typical profile:
H1--0 to 9 inches; silt loam
H2--9 to 20 inches; silt loam
H3--20 to 60 inches; silt loam

Madelia
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

920B2--Clarion-Estherville Complex, 2 To 6 Percent Slopes, Eroded

Component Description

Clarion and similar soils
Extent: 45 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 4.2 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 28 inches; loam
H3--28 to 60 inches; loam

Estherville and similar soils
Extent: 35 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
H1--0 to 9 inches; sandy loam

H2--9 to 20 inches; sandy loam
H3--20 to 60 inches; gravelly coarse sand

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

920C2--Clarion-Estherville Complex, 6 To 12 Percent Slopes, Eroded

Component Description

Clarion and similar soils
Extent: 50 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 32 inches; loam
H3--32 to 60 inches; loam

Estherville and similar soils
Extent: 35 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 2.4 percent
Typical profile:
H1--0 to 8 inches; sandy loam
H2--8 to 21 inches; sandy loam
H3--21 to 60 inches; coarse sand

Delft
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

921B2--Clarion-Storden Loams, 3 To 6 Percent Slopes, Eroded

Component Description

Clarion and similar soils
Extent: 65 percent of the unit
Slope range: 3 to 5 percent

Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 21 inches; loam
H3--21 to 60 inches; loam

Storden and similar soils
Extent: 25 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.3 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 36 inches; loam
H3--36 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

921C2--Clarion-Storden Loams, 6 To 12 Percent Slopes, Eroded

Component Description

Clarion and similar soils
Extent: 65 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 32 inches; loam
H3--32 to 60 inches; loam

Storden and similar soils
Extent: 25 percent of the unit
Slope range: 6 to 12 percent

Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.3 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 37 inches; loam
H3--37 to 60 inches; loam

Delft
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

929--Fieldon-Canisteo Complex

Component Description

Fieldon and similar soils
Extent: 50 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 1 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 7.7 inches
Content of organic matter in the upper 10 inches: 6.5 percent
Typical profile:
H1--0 to 12 inches; loam
H2--12 to 38 inches; fine sandy loam
H3--38 to 60 inches; loamy fine sand

Canisteo and similar soils
Extent: 35 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 1 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 10 inches; clay loam
H2--10 to 20 inches; loam
H3--20 to 32 inches; loam
H4--32 to 60 inches; loam

Glencoe
Extent: 10 percent of the unit
Geomorphic description:
Depression

954B2--Ves-Storden Loams, 3 To 6 Percent Slopes, Eroded

Component Description

Ves and similar soils
Extent: 50 percent of the unit
Slope range: 6 to 15 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.4 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 30 inches; loam
H3--30 to 36 inches; loam
H4--36 to 60 inches; loam

Storden and similar soils
Extent: 30 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 34 inches; loam
H3--34 to 60 inches; loam

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

954C2--Storden-Ves Loams, 6 To 15 Percent Slopes, Eroded

Component Description

Storden and similar soils
Extent: 45 percent of the unit
Slope range: 6 to 15 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.2 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 36 inches; loam
H3--36 to 60 inches; loam

Ves and similar soils
Extent: 40 percent of the unit
Slope range: 6 to 15 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.4 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 30 inches; loam
H3--30 to 36 inches; loam
H4--36 to 60 inches; loam

Delft
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

956--Canisteo-Glencoe Clay Loams

Component Description

Canisteo and similar soils
Extent: 60 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 22 inches; clay loam
H2--22 to 28 inches; clay loam
H3--28 to 60 inches; loam

Glencoe and similar soils
Extent: 20 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)

Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
H1--0 to 26 inches; clay loam
H2--26 to 38 inches; clay loam
H3--38 to 60 inches; loam

Harps
Extent: 5 percent of the unit
Geomorphic description:
Rim

960D2--Storden-Clarion Loams, 12 To 18 Percent Slopes, Eroded

Component Description

Storden and similar soils
Extent: 50 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 1.4 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 24 inches; loam
H3--24 to 60 inches; loam

Clarion and similar soils
Extent: 35 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 32 inches; loam
H3--32 to 60 inches; loam

Delft
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

999B2--Ves-Estherville Complex, 2 To 8 Percent Slopes, Eroded

Component Description

Ves and similar soils
Extent: 60 percent of the unit
Slope range: 4 to 8 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.4 inches
Content of organic matter in the upper 10 inches: 3.8 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 26 inches; loam
H3--26 to 32 inches; loam
H4--32 to 60 inches; loam

Estherville and similar soils
Extent: 30 percent of the unit
Slope range: 2 to 8 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.4 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
H1--0 to 9 inches; sandy loam
H2--9 to 20 inches; sandy loam
H3--20 to 60 inches; gravelly coarse sand

Glencoe
Extent: 5 percent of the unit
Geomorphic description:
Depression

Webster
Extent: 5 percent of the unit
Geomorphic description:
Drainageway

1016--Udorthents, Loamy

Component Description

Udorthents and similar soils
Extent: 95 percent of the unit
Slope range: 0 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
H1--0 to 60 inches; loam
H2--60 to 80 inches;

Webster
Extent: 5 percent of the unit
Geomorphic description:

Flat

1030--Udorthents-Pits, Complex

Component Description

Udorthents
Extent: 50 percent of the unit
Slope range: 0 to 45 percent
Surface layer texture: Loam
Drainage class: Well drained
Flooding: None
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
H1--0 to 60 inches; loam
H2--60 to 80 inches; variable

Pits
Extent: 40 percent of the unit
Slope range: 0 to 45 percent
Ponding: None

Mayer
Extent: 5 percent of the unit
Geomorphic description:
Flat

1055--Palms-Glencoe Complex, Ponded

Component Description

Palms and similar soils
Extent: 50 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
0.5 foot August September October
Ponding is deepest (depth, months):
1.0 foot January February March April May June July November December
Available water capacity to a depth of 60 inches: 17.4 inches
Content of organic matter in the upper 10 inches: 42.5 percent
Typical profile:
H1--0 to 30 inches; muck
H2--30 to 60 inches; clay loam

Glencoe and similar soils
Extent: 30 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status: At the surface all year
Ponding is shallowest (depth, months):
0.5 foot August September October
Ponding is deepest (depth, months):
1.0 foot January February March April May June July November December
Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
H1--0 to 30 inches; clay loam
H2--30 to 60 inches; clay loam

Canisteo
Extent: 5 percent of the unit
Geomorphic description:
Rim

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

1356--Water, Miscellaneous

Component Description

Water, miscellaneous
Extent: 100 percent of the unit

1833--Coland Clay Loam, Occasionally Flooded

Component Description

Coland and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Occasional March April May June July August
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 12.6 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 10 inches; clay loam
H2--10 to 60 inches; clay loam

Millington
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

1834--Coland Clay Loam, Frequently Flooded

Component Description

Coland and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):

Frequent March April May June
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 10 inches; clay loam
H2--10 to 36 inches; clay loam
H3--36 to 60 inches; clay loam

Millington
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

1907--Lakefield Silty Clay Loam

Component Description

Lakefield and similar soils
Extent: 90 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.3 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 18 inches; silty clay loam
H2--18 to 60 inches; silt loam

Madelia
Extent: 5 percent of the unit
Geomorphic description:
Flat

Okoboji
Extent: 5 percent of the unit
Geomorphic description:
Depression

1931--Essexville Sandy Loam

Component Description

Essexville and similar soils
Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 8.4 inches
Content of organic matter in the upper 10 inches: 5.2 percent

Typical profile:
H1--0 to 8 inches; sandy loam
H2--8 to 22 inches; sand
H3--22 to 60 inches; clay loam

Biscay
Extent: 5 percent of the unit
Geomorphic description:
Flat

1981--Hanlon-Kalmarville Complex, 0 To 4 Percent Slopes

Component Description

Hanlon and similar soils
Extent: 50 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 10.0 inches
Content of organic matter in the upper 10 inches: 2.5 percent
Typical profile:
H1--0 to 15 inches; fine sandy loam
H2--15 to 40 inches; fine sandy loam
H3--40 to 60 inches; loamy sand

Kalmarville and similar soils
Extent: 30 percent of the unit
Geomorphic description:
Flood plain
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 12 inches; loam
H2--12 to 55 inches; fine sandy loam
H3--55 to 60 inches; loamy sand

Millington
Extent: 5 percent of the unit
Geomorphic description:
Flood plain

W--Water

Component Description

Water
Extent: 95 percent of the unit